EFFECTIVENESS OF COMMUNICATION BOARD ON LEVEL OF SATISFACTION IN MEETING THE BASIC NEEDS OF PATIENTS ON VENTILATOR ADMITTED IN ICU AT SELECTED HOSPITALS, SALEM.

By

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A DISSERTATION SUBMITTED TO

THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI,

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE

DEGREE OF MASTER OF SCIENCE IN NURSING

(MEDICAL SURGICAL NURSING)

APRIL – 2012

CERTIFICATE

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ACKNOWLEDGEMENT

First and formost I am greatly indebted and pleased to thank God Almighty for his grace, mercy, love, wisdom and blessing showered on me throughout this endeavour without which, it would not have been possible.

There are several hands behind in giving a shape to this research study, which would be impossible to mention all by name. There are some whom the investigator would particularly like to thank.

I wish to express my sincere thanks to **Dr. K.Arthanari, M.S,** Managing Trustee, Sri Gokulam College of Nursing, Salem for providing an opportunity to undertake the course in Sri Gokulam College of Nursing.

I wish to express my deep sense of gratitude and heartful thanks to **Prof.Dr.A.Jayasudha, M.Sc(N)., Ph.D (N).**, Principal, Sri Gokulam College of Nursing, Salem for her full support throughout the course.

I express my sincere gratitude to **Prof.Dr.K.Tamilarasi, Ph.D (N).,** Vice Principal, Sri Gokulam College of Nursing, Salem for her valuable suggestions and immense direction for completion of research study.

I express my heartfelt thanks to my clinical speciality guide **Mrs.N.Anitha, M.Sc(N).,** Associate Professor and HOD, Department of Medical Surgical Nursing, Sri Gokulam College of Nursing for her constant encouragement, valuable guidance, supervision and timely help during the entire course of study.

I extend my gratitude to **Dr.S.Senthilkumaran, M.D., A&E,** Consultant and incharge, Department of Emergency and Critical Care Medicine for his valuable guidance and scholastic suggestion towards this study.

I express my special bouquet of thanks to my co-guide, **Mrs.Hepsi Charles, M.Sc(N).,** Lecturer, Department of the Medical Surgical Nursing, for her ever willing help, constant support and guidance for this study.

I express my deep sense of humble thanks to **Mrs.Bhuvana, M.Sc(N)., Mrs.B.Sumathy, M.Sc(N)., Ms.S.Kanmani, M.Sc(N)., Mrs.V.Kavitha,M.Sc(N)., Mrs.Nithya,M.Sc(N)., Mrs. A.R Devi MSc(N)., Mrs. Shiyamaladevi MSc(N).,** Lectures, Department of Medical Surgical Nursing, Sri Gokulam College of Nursing, Salem for their valuable guidance and suggestion towards the successful completion of this research study.

I express my sincere thanks to my class coordinator **Mrs. P. Lalitha Vijay, M.Sc. (N),** Professor and HOD, Department of the Mental health Nursing for the guidance at every possible level.

I am obliged to the **Medical** and **Nursing Experts** for validating the tool and content used in this study.

I take this opportunity to extend my earnest profound sense of gratitude to all the **Faculty Members,** Sri Gokulam College of Nursing, Salem, for their motivation during the period of this study.

I widen my genuine gratitude to the **Dissertation Committee** for offering constructive criticism and due sanction for carrying out this research study.

I am pleased to convey my thanks to librarian **Mr.Jayaseelan, M.Sc,** for his helping hands in providing all the needed literature to complete this research study.

I would like to express my deepest thanks to **Patients** who had participated in the study without them it would have been impossible to complete my research study.

I express my sincere thanks to **Dr.Dharmalingam, M.Phil., Ph.D**., Biostatistician, for his valuable guidance in statistical analysis of this study.

I am thankful to **Mr.S.Muthuvappa MCom.,M.Ed.,** whose editing suggestions and precise sense of language were decisive towards the completion of this research study.

My heartfelt thanks to **Mr.Ramarao,** General Manager, SKS Hospital, for granting permission to conduct the study in their esteemed Hospital.

I am pleased to convey my sincere thanks to my classmates **Mr.M.Jawahar Babu, Mr.Paul Dinakaran, Mrs. Jayanthi Rani and Mrs. Rajeshwari.** and I extend my thanks to **Mr.V.Murugesan.**, Sri Krishna computers, Salem for printing my research study.

I express my special thanks to all my classmates and friends for their love, care and support who directly and indirectly helped in successful completion of the study.

Last but not least, I wish to convey my special thanks to my mother **Mrs.Amina,** my brothers **Mr.Sajin and Mr.Shan,** my sisters **Mrs. Shameena and Mrs. Suneena, my brother in law** and **my friends** for their valuable support and encouragement throughout my carrier.

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ABSTRACT

A study was conducted to evaluate the effectiveness of communication board on level of satisfaction in meeting the basic needs of patients on ventilator. A quantitative evaluative approach with quasi experimental post test only design was used. Through non probability convenience sampling technique 60 patients were selected, among them 30 patients are from Sri Gokulam Hospital, Salem assigned as experimental group and 30 patients are from SKS hospital, Salem assigned as control group. Communication board on basic needs of patients was provided to the patients on ventilator in experimental group whereas control group were not provided communication board. The data was collected by using semi-structured interview schedule on level of satisfaction after weaning from ventilator and analysed using descriptive and inferential statistics.

Findings revealed that majority 27(90%) in experimental group and 24(80%) in control group did not receive any anxiolytics. In experimental group 23(76.66%) are highly satisfied with communication board where as in control group 16(53.33%) were not satisfied in meeting the basic needs. The post test mean and standard deviation of experimental group and control group was 69.36±18.21, 26.06±2.02 respectively. The calculated 't' value 13.75 is greater than table value (2.134) at $p \leq 0.05$ level. Hence H_1 is retained. There was significant association found between the level of satisfaction with weaning duration (χ^2=10.2704) in experimental group whereas in control group education status (χ^2=5.6501) and use of anxiolytics (χ^2=4.0512) were found to have association at $p \leq 0.05$ level. Hence H_2 was retained for weaning duration in experimental group and H_2 was retained for education status and use of anxiolytics in control group and rejected for all other variables. This study concludes that communication board is effective on level of satisfaction in meeting the basic needs of patients on ventilator.

CHAPTER I

INTRODUCTION

"No one would talk much in society if they knew how often they misunderstood others"

-Johann Wolfgang Von Goethe

Communication is an exchange and flow of information and ideas from one person to another. It involves a sender transmitting an idea, information or feeling to a receiver. Effective communication occurs only if the receiver understands the exact information or idea that sender intended to transmit. Patient centered communication is a basic component of nursing and facilitates the development of a positive nurse patient relationship which along with other organizational factors results in the delivery of quality nursing care.

Critically ill patients will have a strong need to know about their illness throughout the time in the intensive care unit (ICU). Nurses must address this need to constant reorientation to the past and present in these patients. (**Hupcey and Zimmerman, 2000)**

Oral endotracheal intubation inhibits verbal communication, a primary means for expressing needs and response. The nursing Diagnosis- impaired verbal communication, is defined as decreased, delayed, or absent ability to receive, process, transmit, and use a system of symbols**,** frequently it is formulated by critical care nurses for patients experiencing short or long term intubation. Impaired verbal communication can result in a potential inability to identify and meet patient needs. (**NANDA, 2011)**

Communication breakdown between patient and caregiver can lead to increased patient pain, misdiagnosis, drug administration errors, unnecessary

extension in hospital stay and even death. Although there are many simple tools and strategies that can improve the communication between patients and caregivers, these tools usually are not used in most health care settings. (**Harvey pressman,2009)**

The other means of communication such as writing, mounting, gesticulating, nodding will be very difficult for the critically ill patient because of intravenous or arterial lines, casts or splints, peripheral edema and physical restraints. A clinically significant proportion of non-surviving patients treated with mechanical ventilation in the intensive care unit communicate to nurses, other clinicians, and family members primarily through gesture, head nods and words **(Happ et al, 2004)**

Patient receiving mechanical ventilation have reported communication difficulties as the leading problem while intubated. A study was conducted on 150 subjects with an objective to describe stressful experiences of adult patients who received mechanical ventilation for more than 48 hours. The study found that many subjects perceived inability to speak or communicate was moderately to extremely bothersome. **(Rotundi et al, 2002)**

Need for the Study

The number of patients who require prolonged mechanical ventilation is rapidly increasing worldwide, apparently due to aging and a greater number of co morbidities. The incidence of mechanical ventilation for adults grew from 284/100 000 population in 1996 to 314/100 000 in 2002, an increase of 11% . While patients aged >64 had the highest age-specific incidence of mechanical ventilation each year, the greatest increase in incidence occurred in younger age groups (19% increase for age 18-64 vs 4% increase for age >64) **(shannon S carson et. al, 2002)**.

Critically ill patients are often unable to speak as a result of respiratory tract intubation for airway management and mechanical ventilation as well as preexisting

or acquired cognitive linguistic disabilities. The inability to communicate during critical illness can be a traumatic life event that is frightening, reduces patient participation in care and decision making, and impairs pain and symptom assessment. (**Happ, 2001)**

A study on the role of ICU nurse as a communicator in the care of patients on ventilator found that lack of effective communication will cause psycho-socio problems in patients. Communication can help to patients preserve their self-identity and self-esteem, which in turn will enhance their well-being and optimism. **(Casbolt, 2002)**

Patient's inability to communicate results in unrecognized pain, feelings of loss of control, depersonalization, anxiety, fear, distress and frustration. The patients cannot express whatever they want or need. So the patient's needs cannot be met by the care giver. Patients may become anxious when their needs are not met during the periods of mechanical ventilation because of their inability to verbally communicate with family and health care providers. **(Dickerson.s.et.al, 2002)**

A picture board intervention implemented with temporarily-intubated cardio thoracic surgical patients improved patient satisfaction with communication of basic needs during the post-surgical period. **(Happ et al., 2003)**

Patients who cannot communicate effectively has a difficulty in expressing their feelings and basic needs like bathing, combing, toileting, thirst , hunger, pain, etc. Mechanically ventilated patients experience a high level of frustration when communicating their needs, and health care providers have a significant impact on the mechanically ventilated patients experience. While investigator posted in critical care unit he felt very difficulty in understanding the needs of patients on ventilator. The patients are usually expressing their feelings and needs through some justures. But

most of the time those gestures are not understood by the care giver. So the investigator developed an insight to use some creative techniques to enhance the communication of intubated patients. The Communication Board is found to be more effective nonverbal communication method in intubated patients. Now further the study is needed to determine the effectiveness of communication board on the level of satisfaction in meeting the basic needs of patients on ventilator.

Statement of the Problem

A Study to Assess the Effectiveness of Communication Board On The Level Of Satisfaction In Meeting The Basic Needs Of Patients on Ventilator, Admitted in ICU at Selected Hospitals, Salem.

Objectives

- To assess the level of satisfaction in meeting the basic needs of patients on ventilator in experimental and control group.
- To assess the effectiveness of communication board on level of satisfaction in meeting the basic needs of patients on ventilator in experimental and control group.
- To associate the level of satisfaction in meeting the basic needs of patients on ventilator in experimental and control group with their selected demographic variables.

Operational Definitions

Effectiveness:

Effectiveness is statistically the significant change in the level of satisfaction measured by satisfaction scale after providing the communication board for the patients on mechanical ventilation.

Communication Board:

Communication board is a board which allows non verbal communication by pointing or gazing at printed word, symbol or picture.

Satisfaction:

The pleasure obtained when the patient has fulfilled his desire, need or expectation.

Basic Needs:

The elements required for survival and normal mental and physical health such as food, water, shelter protection from environmental threats and love. Here the basic needs are air, food, water, elimination and comfort etc.

Assumptions

- Ventilator patients will have difficulty in verbal communication
- The communication board may have some effect on the level of satisfaction in meeting the basic needs among patients on ventilator.

Hypotheses

H_1: There will be a significant difference between the level of satisfaction in meeting the basic needs among patients on ventilator in experimental and control group at $p \leq 0.05$ level.

H_2: There will be a significant association between the level of satisfaction in meeting the needs of patients on ventilator with their selected demographic variables in experimental and control group at $p \leq 0.05$ level.

Delimitations

- The study is limited to the patients on ventilator.
- The study is limited to conscious patients under mechanical ventilation.
- The data collection period is limited to 4 weeks.

Projected Outcome

- The study will help the nurses to understand the importance of communication board on the level of satisfaction in meeting the basic needs of patients on ventilator.
- The study will provide an opportunity for nurses to use communication board in the ICUs for improving the communication ability of the patients on ventilator.

Conceptual Framework

The present study is based on the concept of application of communication board to the conscious patients on ventilator. The investigator adopted the Widenbach's helping art of clinical art theory (1964) which describe the desired situation and way to attained. It directs action towards the explicit goals. This theory has three factors.

- Central purpose
- Prescription
- Reality

Central purpose

It refers to what the nurse wants to accomplish. It is an overall goal towards which a nurse strives. Central purpose of this study is to improve the level of satisfaction in meeting the basic needs of patients on ventilator.

Prescription

It refers to plan of care for a patient. It will specify the nature of action that will fulfill the nurse's central purpose

Reality

It refers to the physical, psychological, emotional and spiritual factors that comes in to play in situations involving the nurses

The five realities identified by Widenbach are agent, recipient, goal, mean activities and frame work.

The conceptualization of nursing practice according to this theory consists of three steps as follows.

Step I – identifying the need for help

Step II – ministering the needed help

Step III – validating the for help was met

Step I – identifying the need for help

The investigator providing communication board to the patients on ventilator. With the help of communication board patients are showing their wants and needs.

Step II – ministering the needed help

After identifying the need of patient provides intervention.

Agent	:Nurse investigator
Recipient	: Conscious patients on ventilator
Goal	:Improve the level of satisfaction in meeting the basic needs of patients on ventilator
Mean activities	: Provide communication board for experimental group.
Frame work	: ICU of selected hospitals, salem.

Step III – validating the for help was met

It is accomplished by means of post-test assessment level of satisfaction in meeting the basic needs of patients on ventilator for experimental and control group.

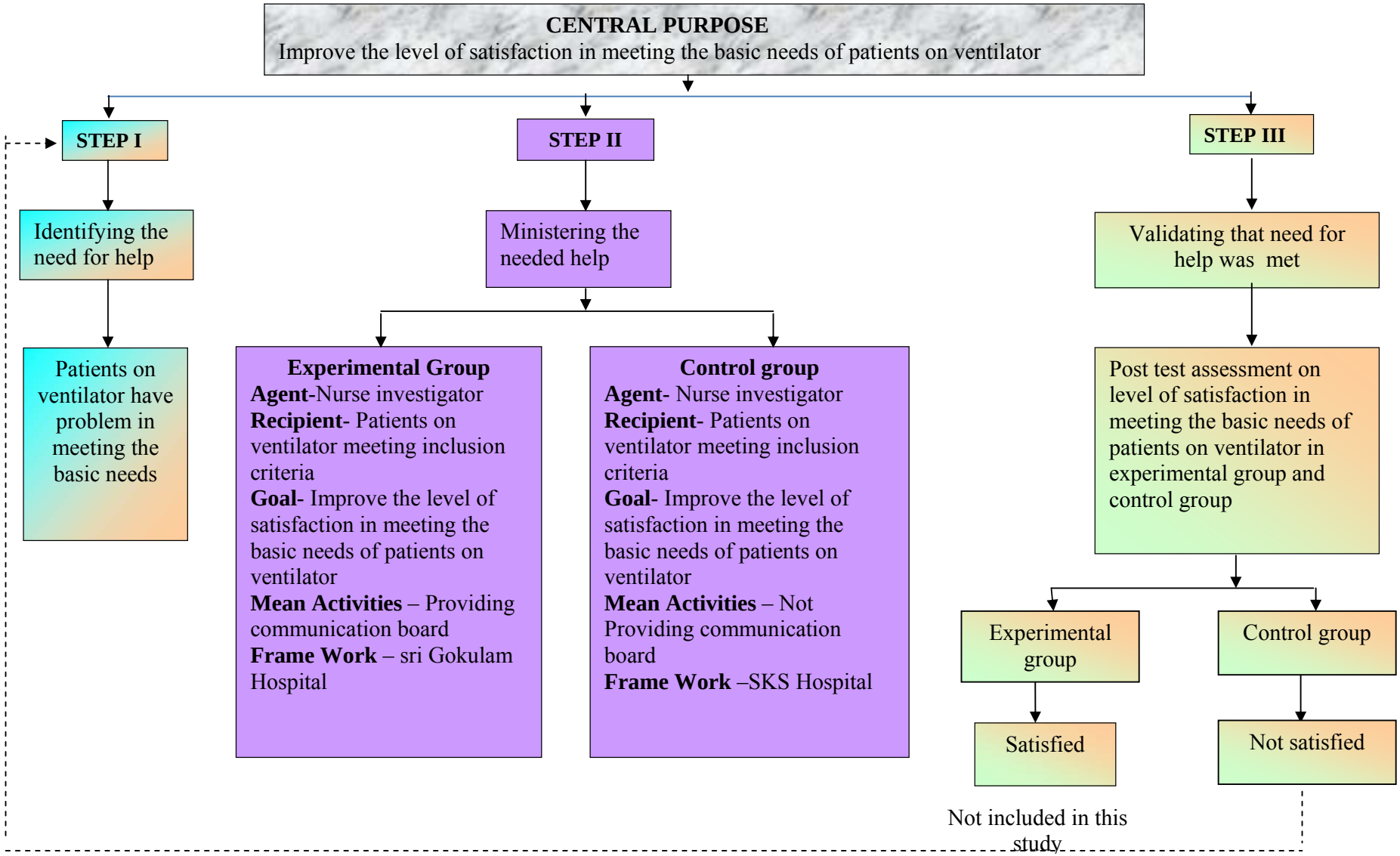

Figure-1.1: Conceptual Framework based on Widenbach's Theory

Summary

This chapter dealt with introduction , need for study, statement of the problem, objectives, operational definitions, assumption, delimitation, projected outcome and conceptual framework

CHAPTER- II

REVIEW OF LITERATURE

Literature review involves the systematic identification, location, scrutiny, and summary of written material that contains information on a research problem. It provides basis for future investigations justify the need for study, throws light on feasibility of the study.

The task of reviewing research literature for research involves the identification, selection, critical analysis, and written description of existing information on the topic of interest. It is usually advisable to undertake a literature review on a subject before actually conducting a research project. Such a review can play a number of important roles.

Review of literature of present study was arranged in the following headings;

Literature related to

- Communication
- Communication of intubated patients
- Effectiveness of communication board

Literature related to communication

Communication in nursing is a journey to a destination on of clear meaning. Nurses travel this road to help patients and families heal and to promote health and wholeness. Communication is at the heart of nursing and is essential in conveying caring and applying nursing skills and knowledge.

Communication is a process by which information is exchanged between individuals through a common system of symbols, signs, or behaviour (**Merrian Webster, 2006**)

Community people receive and send messages through verbal and non-verbal communication. Verbal communication is an exchange of information using words, including both the spoken and the written word. Nonverbal communication is the transmission of information without using words. Information is exchanged through nonverbal communication in various ways like personal appearance, posture and gait, facial expression, eye contact and gestures etc. (**Carol Taylor, 2011)**

Personal appearance of a person is a source of information about him. Clothing and adornments may convey social and financial status, culture, religion and self-concept. How a person dresses is often an indicator how he feels. Someone who is tired or ill may not have desire to maintain their normal grooming. Posture and gait of a person will convey information about him. Peoples walk and carry themselves are reliable indicators of self-concept, current mood and health. Erect posture suggests a feeling of well-being. Slouched posture and a slow shuffling gait suggest depression or physical discomfort. Facial expression is another way of non-verbal communication. Fear, anger, disgust, happiness and sadness can be conveyed by facial expression. Mutual eye contact acknowledges recognition of the other person and willingness to maintain communication. Hand and body gestures may emphasis and clarify the spoken word or they may occur without words to indicate a particular feeling or to give a sign. **(Kozier & Erbs, 2009)**

Many health problems and human responses contributes to impaired communication. Patients who are hearing and visually impaired, patients suffering from stroke or Alzheimer's disease, person with autism or schizophrenia are unable to communicate properly. The person who does not speak and patients with limited vocal skills will be a challenge to nurses to accommodate their special needs. Patient who cannot communicate effectively has difficulty expressing needs and responding

appropriately to the environment and requires special thought and sensitivity. Such patients benefit greatly when you adapt communication technique to their circumstances. When caring for a patient with impaired verbal communication related to language barrier, you may provide a table of simple words in the patient's language. The patients use of the table will meet the expected outcomes of patient communicating basic needs such as food, water, toileting, rest and pain relief. Providing alternative methods of communication can be provided for the patients who are unable to speak. Patients must be physically able to use the methods you provide. Some of the alternative methods of communication are, magic slate, flash cards, communication boards with words, letters or pictures denoting basic needs, Computer toy, Call bells of alarms, Sign language (**Potter and Perry, 2009)**

Nurse patient relationship is very essential in patient care. The study has shown that in their interactions with patients, expert nurses follow a pattern in terms of the structure and content of the conversations and it is possible to identify specific features of effective nurse-patient communication within these conversations. The most significant of these are the repertoire of linguistic skills available to nurses, the importance of small talk and the attention paid by nurses to build a working relationship with patients, in part, through conversation. (**Lindsay Margaret Macdonald, 2001)**

Another study explains the importance of nurses using a patient-centred approach when communicating with patients to ensure the delivery of quality patient care. Using purposeful sampling, eight patients in a general teaching hospital in the Republic of Ireland were interviewed. Data were collected using unstructured interviews. The findings of this study indicate that in contrast to the literature that suggests that nurses are not good at communicating with patients; nurses can

communicate well with patients when they use a patient-centred approach. However, health care organizations do not appear to value or recognize the importance of nurses using a patient-centred approach when communicating with patients to ensure the delivery of quality patient care. Another reason why nurses may not communicate in a patient-centred way is that they do not know what patients value about nurse–patient interactions. This lack of evidence also limits the way in which nurses are educated in relation to how to communicate in a patient centred way. **(Catherine McCabe, 2002)**

Literature related to Communication of intubated patients

A study was conducted to describe communication interactions, methods, and assistive techniques between nurses and nonspeaking critically ill patients in the intensive care unit. Video recorded interactions between 10 randomly selected nurses (5 per unit) and a convenience sample of 30 critically ill adults (15 per unit) who were awake, responsive, and unable to speak because of respiratory tract intubation were rated for frequency, success, quality, communication methods, and assistive communication techniques. Patients are self-rated the ease of communication. Result showed that nurses initiated most 86.2% of the communication exchanges. The most common positive nurse act was making eye contact with the patient. Although communication exchanges were generally >70% successful, more than one-third 37.7% of communications about pain were unsuccessful. Patients rated 40% of the communication sessions with nurses as somewhat difficult to extremely difficult. Assistive communication strategies were uncommon, with little to no use of assistive communication materials (eg, writing supplies, alphabet or word boards). Study results highlight specific areas for improvement in communication between nurses and nonspeaking patients in the

intensive care unit, particularly in communication about pain and in the use of assistive communication strategies and communication materials **(Happ et.al, 2011)**

A study conducted on communicating effectively with ventilator-dependent patients is essential so that various basic physiological and psychological needs can be conveyed and decisions, wishes, and desires about the plan of care and end-of-life decision making can be expressed. Numerous methods can be used to communicate, including gestures, head nods, mouthing of words, writing, use of letter/picture boards and common words or phrases tailored to meet individualized patients' needs. High-tech alternative communication devices are available for more complex cases. Various options for patients with a tracheostomy tube include partial or total cuff deflation and use of a speaking valve. It is important for nurses to assess communication needs; identify appropriate alternative communication strategies; create a customized care plan with the patient, the patient's family, and other team members; ensure that the care plan is visible and accessible to all staff interacting with the patient; and continue to collaborate with colleagues from all disciplines to promote effective communication with non-vocal patients (**Irene Grossbach et.al, 2011)**

A study was conducted on Fifty patients who received mechanical ventilation and died during hospitalization were randomly selected from all adult patients treated in 8 ICUs in a tertiary medical centre during a 12-month period. When patients cannot respond, communication between patients and caregivers is usually limited to short-term information related to physical care in the form of yes/no questions or commands. Gestures, a primary method of nonvocal communication, are often inhibited by use of wrist restraints. Moreover, wrist restraints hinder the use of augmentative and alternative communication methods such as picture or letter boards,

writing, or use of an electrolarynx. Physical restraint may indirectly impede communication by contributing to feelings of stress, anxiety, depression, and withdrawal among patients receiving mechanical ventilation. Although physical restraints were applied intermittently or continuously to at least 50% of the patients in our study at some time during their ICU stay, communication episodes occurred more often when physical restraints were not in use (62.9%) than when physical restraints were applied (37.1%). Results showed most documented communication exchanges were between patients and nurses. Primary methods of communication were head nods, mouthing words, gesture, and writing. Physical restraints were used in half of the patients. Communication content was primarily related to pain, symptoms, feelings, and physical needs. Patients also initiated communication about their homes, families and conditions (**Happ et.al, 2004)**

A study was conducted on interpretation and understanding of nonvocal mechanically ventilated patients' experiences with communication. Peplau's interpersonal relations theory provided the theoretical framework for the metasynthesis. The final sample included 12 qualitative studies, for a total of 111 participants. Common threats detected across study participants' individual experiences were synthesized to form a greater understanding of non-vocal ventilated patients' perceptions of being understood. Five overarching themes were divided into two groups. The first group of themes was categorized as the characteristics of non-vocal ventilated patient's communication experiences. Non-vocal individuals were often not understood, which resulted in loss of control and negative emotional responses. The second group of themes was categorized as the kind of nursing care desired by non-vocal patients in order to be understood. Non-vocal patients wanted nursing care that was delivered in an individualized, caring manner. This facilitated

positive interpersonal relations between the patient and the nurse. It highlights the critical role of nurses in improving the patients understanding by proper communication **(Carroll's, 2004)**

A study was conducted on 150 subjects with an objective to describe stressful experience of adult patients who receive mechanical ventilation for more than 48 hrs. Two thirds of these patients remembered the endotracheal tube and/or being in an intensive care unit. The median numbers of endotracheal tube and intensive care unit experiences remembered were 3 (of 7) and 9 (of 22), respectively. The study found that many subjects perceived inability to communicate was subjected to numerous stressful experience which was found moderately to extremely bothersome (**Rotundi et.al, (2002)**.

A study on the difference in perceptions between intubated patients and not intubated patients during illness. Grounded theory was used to explore the meaning of knowing and not knowing and the process by which knowing occurs. Unstructured interviews were done with 14 patients. Showed that critically ill patients have a strong need to know throughout and after their discharge from the intensive care unit. Nurses must address this need for constant reorientation to the past and present in these patients. In addition, adequate nursing staff must be available for these patients **(Hupcey and Zimmerman, 2000)**

Literature related to communication board

A descriptive study using quantitative methods was conducted on twenty-nine critically ill patients who were extubated within the past 72 hours. Sixty-two percent of patients reported a high level of frustration in communicating their needs while receiving mechanical ventilation. Patients judged that their perceived level of frustration in communicating their needs would have been significantly lower if a

communication board had been offered (29.8%) than if not (75.8%). **(Patak, et.al, 2004)**

A descriptive study was conducted on nursing the patient with severe communication impairment among 20 nurses who cared for patients with severe communication impairment. The results suggest that nurse–patient communication is difficult when the patient has severe communication impairment, although some nurses discovered effective strategies to facilitate communication with such patients. Many of the difficulties could be viewed as a breakdown in understanding arising from the lack of a readily interpretable communication system that could be used by nurse and patient. Thus the results suggest a need for training nurses in the use of alternative modes of communication. Nurses also need access to a variety of simple augmentative communication devices for use with patients who are unable to speak. (**Hemsley et.al, 2001)**

A study was conducted to assess the effectiveness of AAC devices on improving the communication among patients with severe acquired communication impairments. Samples consists of 10 patients with no functional speech and who were admitted 12 months before the study. Samples were interviewed about their communication experience with nurses. Samples experienced difficulties because of lack of augmentative and alternative communication (AAC) resources and lack of knowledge about AAC among nurses. Samples noted that nurses have no time and skill to communicate properly to the samples. The study concluded that many of these communication difficulties can be overcome by use of AAC in critical care unit. (**Susan Balandin et al, 2001)**

Summary

This chapter dealt with review of literature related to communication, communication of intubated patient and effectiveness of communication board.

CHAPTER III

METHODOLOGY

The study is designed to assess the effectiveness of communication board on the level of satisfaction in meeting the basic needs of patients on ventilator. This chapter includes research design , description of setting , variables , population and sample , sampling technique and sampling size, criteria for sample selection , description of tool, validity, data collection procedure , pilot study and data analysis method.

Research Approach

Quantitative evaluative research approach was adopted for the study.

Research Design:

The research design adopted for this study is post test only control group design .The design can be represented as.

E =	X	O
C =		O

E: Experimental group consisting of 30 patients on ventilator.

C: Control group consisting of 30 patients on ventilator.

X: Providing communication board for patients on ventilator.

O: Assessment of satisfaction level in meeting the basic need among patients on ventilator.

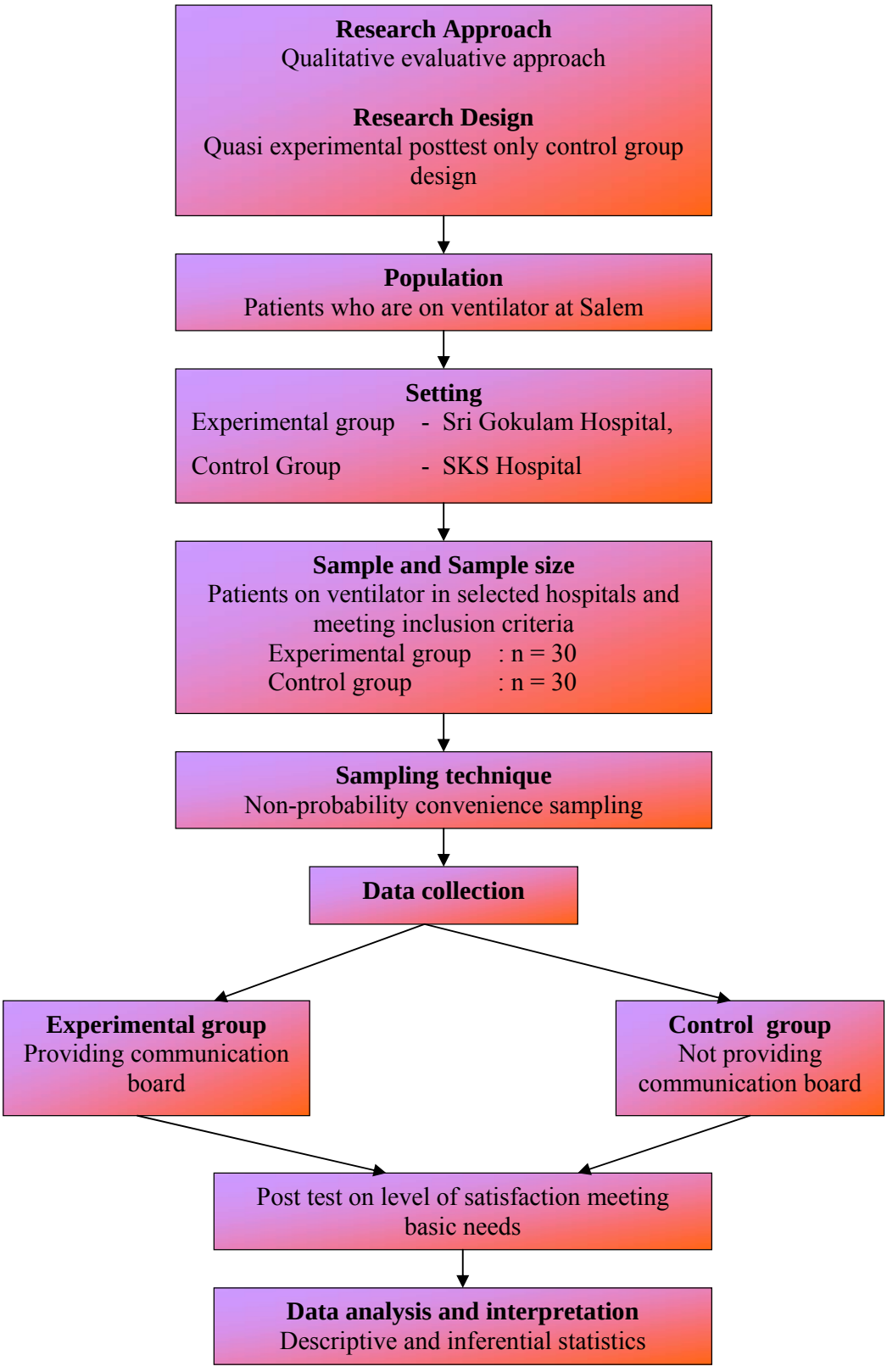

Figure-3.1: Schematic Representation of Research Methodology

Population:

The population of this study comprises of patients on ventilator at selected Hospital ICU, at salem.

Description of Setting:

The study was carried out in Sri Gokulam Hospital (Experimental group) and SKS Hospital (Control group), Salem. Sri Gokulam Hospital is equipped with 330 beds and it has various departments like ICU, NICU, Trauma ICU, Emergency unit and IMCU. Sri Gokulam Hospital is about 1 km away from New Bus stand, Salem. The monthly census report of patients on ventilator in ICU and Trauma ICU is 60-75. Whereas the SKS Hospital is equipped with 160 beds and it has various departments like ICU, NICU and Emergency unit. SKS Hospital is about half kilometer away from New Bus stand, Salem. The monthly census report of patients patients on ventilator in ICU is 35-45.The investigator selected these settings for the availability of the sample and feasibility of the study.

Sampling:

- **Sample:**

  The sample of this study comprises of patients on ventilator admitted at trauma ward & ICU at Sri Gokulam Hospital and SKS Hospital, Salem during the study period and those who met the sampling criteria.

- **Sample Size:**

  The sample size for this study was 60 patients on ventilator. Among them 30 patients of Sri Gokulam Hospital were selected for experimental group and other 30 patients of SKS Hospital were selected for control group.

- **Sampling Technique:**

  The investigator selected 60 patients on ventilator through non probability Convenience sampling technique

- **Criteria for Sample Selection:**

  Inclusion Criteria:

  1. Conscious patients under mechanical ventilation
  2. Patients with normal mental status

  Exclusive Criteria:

  1. Patients with immobility of upper limbs.
  2. Patients who are not willing to participate in the study.

Variables:

Independent variable: Communication board.

Dependent variable : Level of satisfaction in meeting the basic needs.

Extraneous variable : Age, sex, education , occupation and area of residence

Description of the Tool

The tool consist of

Section – 1: Demographic variables

Demographic variables like age, sex, religion, education, occupation, area of residence, duration of intubation, use of any anxiolytics, weaning duration and diagnosis are collected by using a semi structured interview schedule.

Section –2: A rating scale to assess the level of satisfaction in meeting the basic needs of patients on ventilator

A semi structured interview schedule was used to assess the level of satisfaction in meeting the basic needs of patients on ventilator. According to scoring the patients were classified in to various categories.

Level of satisfaction	Score	Percentage
Highly satisfied	< 28	33 %
Moderately satisfied	28-55	32% - 65%
Not satisfied	>56	> 65%

Validity and Reliability:

Validity:

Validity of the tool was obtained from Six Experts in the field of Nursing and Two from the field of Medicine.

Reliability:

The reliability of the tool was checked and was established by using inter rater method r^1 = 0.98 which showed that the tool was reliable and was considered for proceeding.

Pilot Study:

Pilot study was conducted to find out the feasibility of the study. A formal permission was obtained from the concerned authority of the hospitals. It was conducted with a sample size of 6 patients on the ventilator, 3 patients from SKS Hospital selected for experimental group and 3 patients from Manipal Hospital selected for control group. The collected data was analyzed by using descriptive and inferential statistics. The pilot study revealed that the study is feasible and practicable

Method of data collection:

Ethical consideration:

Written permission was obtained from the Managing Director of Sri Gokulam Hospital and SKS hospital, Salem. Informed oral consent was obtained from the patients and relatives.

Data collection procedure:

The data was collected over a period of 4 weeks from 12/7/11 to 7/8/11. Investigator selected 30 samples for control group from SKS Hospital and 30 samples for experimental group from Sri Gokulam Hospital by using non probability convenience sampling technique. First investigator introduced himself to the patients and explained the purpose of the study and got consent from relatives. Then the communication board was provided for the patients in experimental group. They are explained about how to use the communication board. The control group were not provided the communication board and they expressed their wants and needs without any assistive devices. After the patients weaned from the ventilator data was collected by using semi structured interview schedule for assessing the level of satisfaction in meeting the basic needs. The collected data was analysed & interpreted.

Plan for Data Analysis:

The data will be analyzed by using both descriptive and inferential statistics. The data related to demographic variables will be analyzed by using descriptive measures (frequency, percentage) and the level of satisfaction in meeting the basic needs of patients on ventilator will be analyzed by using descriptive statistics (mean, standard deviation). The effectiveness of communication board on level of satisfaction in meeting the basic needs will be analyzed by t -test. The association between the level of satisfaction in meeting the basic needs with their selected demographic variables will be analyzed by using inferential statistics (chi – square test)

Summary:

This chapter dealt with research approach, research design, settings, variables, population, sampling, criteria for sample selection, description of the tool, validity and reliability, pilot study, data collection and plan for data analysis. The analysis and interpretation of the study are present in the following chapter.

CHAPTER – IV

DATA ANALYSIS AND INTERPREATION

This chapter describes analysis and interpretation of data collected to evaluate the effectiveness of communication board on the level of satisfaction in meeting the basic needs of patients on ventilator. The collected data was organized, tabulated and analyzed by using descriptive and inferential statistics as follows.

Section- A:

Distribution of patients on ventilator according to their demographic variables

Section- B:

Distribution of patients on ventilator according to the post test level of satisfaction in meeting the basic needs of experimental and control group

Section-C:

a. Comparison on level of satisfaction in meeting the basic needs according to the post test among patients on ventilator in experimental and control group.
b. Comparison of mean, standard deviation of level of satisfaction in meeting the basic needs among patients in experimental and control group.

Section – D: Hypothesis testing

a. Effectiveness of communication board on level of satisfaction in meeting the basic needs among patients on ventilator in experimental and control group.
b. Association between the level of satisfaction in meeting the basic needs of patients on ventilator in experimental and control group with their selected demographic variables

Section-A

Distribution of patients on ventilator according to their demographic and illness related variables

Table-4.1:

Frequency and percentage distribution of patients on ventilator according to their demographic variables

n=60

S. No	Demographic variables	Experimental group (n=30)		Control group (n=30)	
		f	%	F	%
1.	**Age in years**				
	a. 21 - 30	-	-	-	-
	b. 31 – 40	-	-	-	-
	c. 41 – 50	-	-	-	-
	d. 51 – 60	14	46.67	13	43.34
	e. 61 – 70	16	53.33	17	56.66
2.	**Sex**				
	a. Male	19	63.33	19	63.33
	b. Female	11	36.67	11	36.67
3.	**Religion**				
	a. Hindu	21	70	17	56.67
	b.Muslim	6	20	10	33.33
	c. Christian	3	10	3	10
	d. Other	-	-	-	-
4.	**Educational status**				
	a. Illiterate	8	26.67	19	63.33
	b. Primary	22	73.33	11	36.67
	c. High school	-	-	-	-
	d. Higher Secondary school	-	-	-	-
	e. Graduate	-	-	-	-
	f. Doctorate	-	-	-	-
5.	**Occupation**				
	a. Employed	5	16.67	21	70
	b. Unemployed	25	83.33	9	30
6.	**Area of residence**				
	a. Urban	15	50	16	53.33
	b. Rural	15	50	14	46.67

The above table represents that in experimental group 16(53.33%) of patients were between 61-70 years of age and in control group 17(56.66%) patients were between 61-70 years, and. In experimental group 19(63.33%) patients were females and in control group 19(63.33%) patients were males. In experimental group 21(70%) patients and in control group 17(56.67%) patients were Hindus. In experimental group 22(73.33%) patients were having primary education, where as in control group 19(63.33%) patients were illiterate. In experimental group 25(83.33%) patients were unemployed and in control group 21(70%) patients were employed. In experimental group 15(50%) patients belong to both urban and rural area where as in control group 16(53.33%) patients belong to urban area.

Table-4.2:

Frequency and percentage distribution of patients on ventilator according to their illness related variables

n=60

S. No	Illness related variables	Experimental group (n=30)		Control group (n=30)	
		f	%	F	%
7.	**Duration of intubation**				
	a. < 2 days	3	10	8	26.67
	b. 2 – 5 days	23	76.67	22	73.33
	c. > 6 days	4	13.33	-	-
8.	**Weaning duration**				
	a. 2 days	18	60	12	40
	b. 3 days	10	33.33	18	60
	c. 4 days	2	6.67	-	-
9.	**Use of any anxiolytics**				
	a. Yes	3	10	6	20
	b. No	27	90	24	80
10.	**Diagnosis**				
	a. Cardiovascular disease	7	23.33	9	30
	b. Pulmonary disease	14	46.67	16	53.33
	c. Renal disease	3	10	1	3.33
	d. Gastro Intestinal	2	6.67	-	-
	e. Neurological	4	13.33	4	13.34
	f. Musculoskeletal	-	-	-	-
	g. Surgical resection	-	-	-	-
	h. Others	-	-	-	-

The above table represents that, In experimental group 23(76.67%) patients were intubated for 2-5 days where as in control group 22(73.33%) patients were intubated for 2-5 days, In the experimental group 18(60%) patients were having 2 days of weaning duration whereas in control group 18(60%) patients were having 3 days of weaning duration. In experimental group 27(90%) patients were on anxiolytics and in control group 24(80%) patients were not on anxiolytics. In experimental group 14(46.67%) patients were having pulmonary diseases where as in control group 16(53.33%) patients had pulmonary disease.

Section- B

Distribution of patients on ventilator according to their post test level of satisfaction in meeting the basic needs in experimental and control group

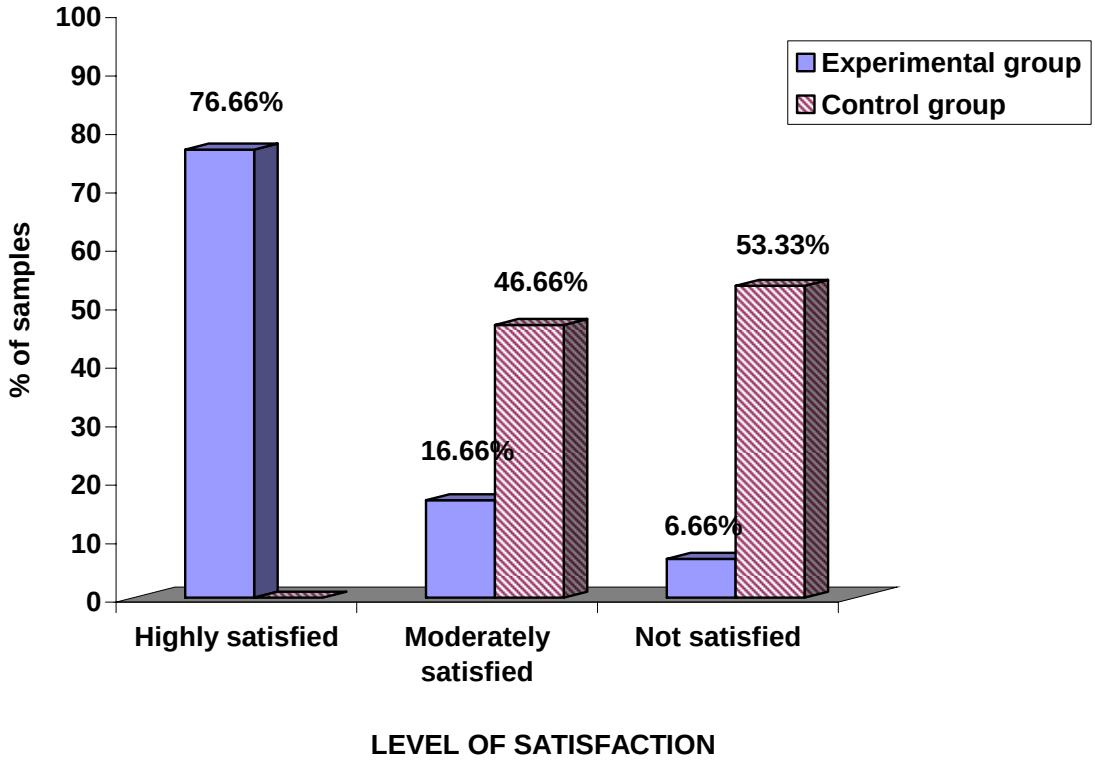

Figure-4.1: Bar diagram shows percentage distribution of patients according to the post test level of satisfaction in meeting the basic needs.

The above figure shows that distribution of samples according to their level of satisfaction in meeting the basic needs of patients on ventilater. Majority of patients 23(76.66%) in experimental group are highly satisfied and majority of the patients 16(53.33%) were not satisfied in the control group. This reveals that experimental group patients are highly satisfied than control group patients.

Section C

Table 4.3

Comparison of mean, standard deviation on level of satisfaction in meeting the basic needs among patients in experimental and control group.

n=60

Groups	Maximum score	Mean	SD	Mean %	Difference in Mean %
Experimental group	4	69.36	18.21	82.57	51.55
Control group		26.06	2.02	31.02	

The above table represents the overall posttest level of satisfaction in experimental and control group patients. In experimental group the mean posttest score was 69.36±18.21, whereas in control group the mean score was 26.06±2.02. Mean percentage of experimental group is 82.57 and the mean percentage of the control group is 31.02. The difference in mean % is 51.55. This shows that communication board was effective on level of satisfaction in meeting the basic needs of patients on ventilator.

Section D

Hypotheses Testing

Table-4.4:

Effectiveness of communication board on level of satisfaction in meeting the basic needs among patients on ventilator in experimental and control group.

n=60

Groups	Mean	SD	't' value
Experimental group	69.36	18.21	13.75
Control group	26.06	2.02	

Significant at p≤ 0.05 level. Df= 58, table value 2.01.

The above table represents the overall posttest level of satisfaction of experimental and control group patients. In experimental group the mean posttest score was 69.36±18.21, whereas in control group the mean score was 26.06±2.02, The calculated t value 13.75 is greater than table value (2.01) at p≤ 0.05 level of significance, hence the research hypothesis H_1 is retained. This shows that communication board was effective on level of satisfaction in meeting the basic needs of patients on ventilator in experimental group.

Association between the level of satisfaction in meeting the basic needs of patients on ventilator in experimental and control group with their selected demographic variables.

Table -4.6:

Chi-square test on level of satisfaction in meeting the basic needs of patients on ventilator in experimental group with their selected demographic variables.

Sl. No	Demographic variables	Experimental group (n=30)			Control group (n=30)		
		χ^2	Table value	Df	χ^2	Table value	df
1.	Age in yrs	2.1166	5.99	2	2.0362	3.84	1
2.	Sex	0.8112	5.99	2	0.7363	3.84	1
3.	Religion	3.5912	9.49	4	0.7301	5.99	2
4.	Education	1.0079	5.99	2	5.6501*	3.84	1
5.	Occupation	2.6076	5.99	2	0.1586	3.84	1
6.	Residence	2.5912	5.99	2	0.1511	3.84	1
7.	Duration of intubation	4.5478	9.49	4	0.0497	3.84	1
8.	Weaning duration	10.2704*	9.49	4	1.4285	3.84	1
9.	Use of anxiolytics	0.8204	5.99	2	4.0512*	3.84	1
10.	Diagnosis	10.499	15.5	8	0.9919	7.31	3

Significant at p≤ 0.05 level.

In experimental group there was significant association between the level of satisfaction with weaning duration only at p≤0.05 level. Hence the research hypothesis H_2 was retained for weaning duration in experimental group.

In control group there was significant association between the level of satisfaction with education status and use of anxiolytics at $p \leq 0.05$ level. The research hypothesis H_2 was retained for education status and use of anxiolytics in control group.

Summary

This chapter dealt with data analysis and interpretation in the form of statistical values based on the objectives, frequency and percentage on level of satisfaction among patients on ventilator with their selected demographic variables was analyzed. The t test was used to evaluate the effectiveness of communication board on level of satisfaction among patients on ventilator. The chi-squire analysis was used to find out the association between the level of satisfaction among patients on ventilator with their selected demographic variables.

CHAPTER – V

DISCUSSION

The aim of the present study was to assess the effectiveness of communication board on the level of satisfaction in meeting the basic needs of patients on ventilator at selected hospitals, Salem.

Demographic variables

In relation to the distribution of biographic variables, in experimental group 16(53.33%) of patients on ventilator were between the age group of 61-70 yrs, 19(63.33%) patients were females, 21(70%) patients were Hindus, 22(73.33%) patients were having primary education, 25(83.33%) patients were unemployed and 15(50%) patients were belongs to both urban and rural area.

In control group 17(56.66%) patients on ventilator were between the age group of 61-70 yrs. 19(63.33%) patients were males, 17(56.67%) patients were Hindu, 19(63.33%) patients were illiterate, 21(70%) patients were employed, and 16(53.33%) patients are belongs to urban area.

In relation to the distribution of illness related variables in experimental group 23(76.67%) patients on ventilator were having 2-5 days of duration of intubation, 18(60%) of them were having 2 days of wearing duration, 27(90%) of them not used anxiolytics and 14(46.67%) patients were having pulmonary diseases.

In control group 22(73.33%) patients on ventilator were having 2-5 days of duration of intubation, 18(60%) patients in control group were having 3 days of weaning duration, 24(80%) patients have not used anxiolytics, and 16(53.33%) of them have pulmonary disease.

Assessment of level of satisfaction in meeting the basic needs of patients on ventilator in experimental and control group.

Majority of patients 23(76.66%) in experimental group are highly satisfied and majority of the patients 16(53.33%) were not satisfied in the control group. This reveals that experimental group is having more level satisfaction than control group.

Effectiveness of communication board on level of satisfaction in meeting the basic needs of patients on ventilator

In experimental group the mean posttest score was 69.36±18.21, whereas in control group the mean score 26.06±2.02. The calculated 't' value was 13.75 is greater than table value (2.134) at $p \leq 0.05$ level of significance. Hence the research hypothesis H_1 is retained. It shows that the communication board was effective on the level of satisfaction in meeting the basic needs of patients on ventilator in experimental group.

This study is supported by a study by **Happ et al., 2003** about effectiveness of picture board intervention implemented to temporarily-intubated cardio thoracic surgical patients. The result showed that there was an improvement of patent satisfaction in communicating the basic needs during the post-surgical period.

This study is supported by another study by **Patak, et.al, 2004.** A descriptive study using quantitative methods was conducted on twenty-nine critically ill patients who were extubated within the past 72 hours. Sixty-two percent of patients reported a high level of frustration in communicating their needs while receiving mechanical ventilation. Patients judged that their perceived level of frustration in communicating their needs would have been significantly lower if a communication board had been offered 29.8% than if not 75.8%.

Association between level of satisfaction in meeting the basic needs of patients on ventilator in experimental and control group with their selected demographic variables.

In experimental group there was significant association between level of satisfaction with wearing duration only at $p \leq 0.05$ level. Hence the research hypothesis H_2 is retained.

In control group there was significant association between the level of satisfaction with education status and use of anxiolytics at $p \leq 0.05$ level. Hence the research hypothesis H_2 is retained.

Summary

This chapter dealt with the discussion of the study with reference to the objective and supportive studies. All the three objectives have been obtained and the two research hypotheses H_1 and H_2 retained in the experimental group.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATIONS

This chapter consists of four sections. In the first two sections consists of summary, conclusion and in the last two sections the implications for nursing practice and recommendations are presented.

Summary

The main focus of the study was to evaluate the effectiveness of the Communication Board on the Level of Satisfaction in Meeting the Basic Needs of Patients on Ventilator. A Quasi experimental post test only control group design study was conducted in Sri Gokulam hospital and SKS hospital, Salem. The sample of this study comprises of patients on ventilator admitted at trauma ward & ICU at Sri Gokulam Hospital and SKS hospital, Salem. The sample size for this study was 60. Among them 30 patients of Sri Gokulam Hospital were assigned to experimental group and other 30 patients of SKS hospital were assigned to control group. patients are selected by non probability Convenience sampling technique. Data was collected by using semi structured interview schedule for assessing the level of satisfaction in meeting the basic needs.

The baseline data was tabulated by formulating frequency table. The level of satisfaction in meeting the basic needs of patients on ventilator was assessed by using descriptive statistics. The effectiveness of communication board on level of satisfaction in meeting the basic needs was evaluated by inferential statistics t-test. The chi – square analysis was done to associate the level of satisfaction in meeting the basic needs with their selected demographic variables of patients on ventilator.

Findings of the Study

- In the demographic variables of the experimental group 16(53.33%) of patients were between 61-70 yrs of age and in control group 17(56.66%) patients were between 61-70 yrs.
- Majority of patients in control group were 19(63.33%) males and patients in experimental group were 19(63.33%) females.
- In experimental group 21(70%) patients were Hindus , whereas in control group 17(56.67%) patients were Hindus.
- In experimental group 22(73.33%) patients were having primary education and in control group 19(63.33%) patients were illiterate.
- In experimental group 25(83.33%) patients were unemployed and in control group 21(70%) patients were employed.
- In experimental group 15(50%) patients belong to both urban and rural area where as in control group 16(53.33%) patients belong to urban area.
- In experimental group 23(76.67%) patients were intubated for 2-5 days where as in control group 22(73.33%) patients were intubated for 2-5 days,
- In the experimental group 18(60%) of patients were having 2 days of duration whereas in control group 18(60%) patients were having 3 days of weaning duration
- In experimental group 27(90%) patients were on anxiolytics and in control group 24(80%) patients were not on anxiolytics.
- In experimental group 14(46.67%) patients were having pulmonary diseases whereas in control group 16(53.33%) patients had pulmonary disease.
- In percentage distribution of level of satisfaction in meeting the basic needs according to the post test Majority of patients 23(76.66%) in experimental

group are highly satisfied and majority of the patients 16(53.33%) were not satisfied in the control group.

- The post test mean, Standard deviation score was 69.3618.21 in experimental group, whereas in control group the score was 26.062.02. mean % of experimental group was 82.57 and the mean % of the control group was 31.02. The difference in mean % is 51.55.
- The calculated t value 13.75 is greater than table value 2.01 at $p \leq 0.05$ level of significance, hence the research hypothesis H_1 was retained
- There was significant association between the level of satisfaction with their demographic variables at $p \leq 0.05$ level in experimental group. There was significant association between the level of satisfaction with their demographic variables at $p \leq 0.05$ level in control group. Hence The research hypothesis H_2 was retained for weaning duration only in experimental group and education status and use of anxiolytics in control group.

Conclusion

This study was done to evaluate the effectiveness of the communication board on the level of satisfaction in meeting the basic needs of patients on ventilator at selected hospitals, Salem. The result of this study showed that the communication board were effective among patients on ventilator in meeting the basic needs in experimental group. There is significant association between the level of satisfaction with weaning duration in experimental group. There was significant association between the level of satisfaction with use of anxiolytics in control group.

Implications

The findings of this study have the following implications in the various areas of nursing service, nursing education, nursing administration and nursing research.

Nursing Service

- The nurse can develop sensitivity to the effect of communication board on the level of satisfaction in meeting the basic needs of patients on ventilator
- The nurse should understand the importance of communication board in nursing practice.
- The nurse should teach other nurses the benefit of communication board on the level of satisfaction in meeting the basic needs of patients on ventiator.
- The nurse can provide adequate clinical exposure to the student's where communication board were used in meeting the basic needs of patients on ventilator.

Nursing Education

- The medical surgical and advanced clinical oriented curriculum imparted to nursing students should emphasize more on communication board on the level of satisfaction in meeting the basic needs of patients on ventilator.
- Nursing educators should encourage the nursing students to know about the measures to improve the level of satisfaction in meeting the basic needs of patients on ventilator.
- Staff nurses must be encouraged to actively participate in in-service education and workshop regarding the importance of improving the level of satisfaction in meeting the basic needs of patients on ventilator.

Nursing Administration

- The administrator should collaborate with governing bodies in formulating policies to employ qualified nurses in medical units and periodically supervise their use of communication board .
- The administrator should organize in-service education programme on use of communication board for the nursing personals.
- The administrator should provide opportunity for nurses to attend training programme on use of communication board for patients on ventilator.

Nursing Research

- The researcher should encourage for further research on use of communication board on the level of satisfaction in meeting the basic needs of patients on ventilator.
- The investigator should disseminate the findings through conferences, seminars, publication in professional, national and international journal and the World Wide Web.
- The findings of the study help to expand the scientific body of professional knowledge upon which further research can be conducted.
- The study can be a base line to build upon future studies.

Recommendations

- A similar study can be conducted for a large group.
- A comparative study on communication board and magic slate or alphabets board can be conducted.
- Comparative study can be done on the effectiveness of communication board versus other measures on level of satisfaction in meeting the basic needs of patients on ventilator.

- Similar study can be conducted on different population like laryngectomy patients.

Summary

This chapter dealt with summary, conclusion, implications for nursing practice and recommendations.

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ANNEXURE – A

LETTER SEEKING PERMISSION TO CONDUCT THE RESEARCH STUDY

From

Mr. Subeen P.D,
II Year M.Sc., (N)
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

To

The Principal,
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

Respected Sir/Madam,

Sub: Permission to conduct research project - request- reg.

I, **Mr. Subeen. P.D,** II Year M.Sc., (Nursing) student of Sri Gokulam College of Nursing, is to conduct a research project which is to be submitted to the Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfilment for the award of M.Sc. (Nursing) Degree.

Topic: "A Study to Assess the Effectiveness of Communication Board On Level Of Satisfaction In Meeting The Basic Needs Of Patients on Ventilator, Admitted in ICU at Selected Hospitals, Salem".

I request you to kindly do the needful.

Thanking you.

Date : 13.07.2011
Place : Salem

Yours sincerely,

(Mr. Subeen P.D)

ANNEXURE - B

LETTER GRANTING PERMISSION TO CONDUCT A

RESEARCH PROJECT

SRI GOKULAM COLLEGE OF NURSING
3/836, Periyakalam, Neikkarapatti, Salem - 636 010.
Phone : 0427 - 6544550,2272240,2272250 Fax : 0427 - 2270200, 2447077
Email : sgcon2001@yahoo.com, sgcon2001@gmail.com

LETTER REQUESTING PERMISSION TO CONDUCT A

Date : .....

RESEARCH PROJECT

To

12.07.11

The General Manager,
SKS Hospital,
Salem.

Respected Sir/Madam,

Sub: Permission to conduct research project – request – reg.

This is to introduce **Mr. Subeen. P.D,** a final year M.Sc.(Nursing) student of Sri Gokulam College of Nursing. He is to conduct research project which is to be submitted to the Tamilnadu Dr. M.G.R. Medical University, Chennai in partial fulfillment of University requirement for the award of M.Sc (Nursing) Degree.

Topic: "A Study To Assess The Effectiveness Of Communication Board On Level Of Satisfaction In Meeting The Basic Needs Of Patients On Ventilator Admitted In ICU At Selected Hospitals, Salem".

I request you to kindly permit him to conduct a research project in your esteemed Hospital from 13-07-11 to 09-08-11. He will adhere to the Hospital policies and regulations.

Permitted for the Study

Thanking you

Yours sincerely,

(Dr.A.Jayasudha)
PRINCIPAL
Sri Gokulam College of Nursing
SALEM – 636 010.

(N. Rama Rao)
General Manager

S.K.S HOSPITAL INDIA (P) LTD. SALEM-4

LETTER GRANTING PERMISSION TO CONDUCT A

RESEARCH PROJECT

From

Mr. Subeen. P.D,
II Year M.Sc., (N)
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

To

The Managing Director
Sri Gokulam Hospital,
Salem.

Through

The Principal,
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

Respected Sir/Madam,

Sub: Permission to conduct research project – request – reg.

I, **Subeen.P.D,** II Year M.Sc., (Nursing) student of Sri Gokulam College of Nursing, is to conduct a research project which is to be submitted to the Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfilment for the award of M.Sc. (Nursing) Degree.

Topic: "A Study to Assess the Effectiveness of Communication Board On The Level Of Satisfaction In Meeting The Basic Needs Of Patients on Ventilator, Admitted in ICU at Selected Hospitals, Salem''.

.

Kindly permit to conduct a research project in your hospital, Salem from 11-7-11 to 7-8-11 with adherence to the hospital policies and regulations.

Thanking you,

Yours Obediently,

Place : Salem
Date :

(**Subeen.P.D)**

ANNEXURE - C

LETTER REQUESTING OPINION AND SUGGESTIONS OF EXPERTS FOR CONTENT VALIDITY OF THE RESEARCH TOOL

From,

Mr.Subeen.P.D,
II year M.Sc. (N),
Sri Gokulam College of Nursing,
Salem, Tamil Nadu.

To,

(Through proper channel)

Respected Sir/ Madam,

Sub: Requesting opinion and suggestions of expert for establishing content validity of the tool.

I, Mr Subeen. P.D, I Year M.Sc. (Nursing) student of Sri Gokulam College of Nursing, Salem, have selected the below mentioned Statement of the Problem for the research study to be submitted to The Tamil Nadu Dr. M.G.R. Medical University, Chennai as partial fulfilment for the award of Master Of Science in Nursing.

Topic: A Study to Assess the Effectiveness of Communication Board On The Level Of Satisfaction In Meeting The Basic Needs Of Patients on Ventilator, Admitted in ICU at Selected Hospitals, Salem.

I request you kindly validate the tool developed for the study and give your expert opinion and suggestion for necessary modifications.

Thanking you.

Place: Salem Yours sincerely,

Date **(**Subeen.P.D**)**

Enclosed:

- Certificate of validation.
- Tool for collection of data.
- Criteria checklist for evaluation of tool.
- Content of reminiscence therapy.

ANNEXURE – D

TOOL FOR DATA COLLECTION

SECTION – A : DEMOGRAPHIC VARIABLES

1. Age in years
    a. 21 - 30
    b. 31 – 40
    c. 41 – 50
    d. 51 – 60
    e. 61 – 70
2. Sex
    a. Male
    b. Female
3. Religion
    a. Hindu
    b.Muslim
    c. Christian
    d. Other
4. Educational status
    a. Illiterate
    b. Primary
    c. High school
    d. Higher Secondary school
    e. Graduate
    f. Doctorate

5. Occupation
    a. Employed
    b. Unemployed
6. Area of residence
    a. Urban
    b. Rural
7. Duration of intubation
    a. < 2 days
    b. 2 – 5 days
    c. > 6 days
8. Weaning duration
    a. 2 days
    b. 3 days
    c. 4 days
9. Use of any anxiolytics
    a. Yes
    b. No
10. Diagnosis
    a. Cardiovascular disease
    b. Pulmonary disease
    c. Renal disease
    d. Gastro Intestinal
    e. Neurological
    f. Musculoskeletal
    g. Surgical resection
    h. Others

RATING SCALE TO ASSESS SATISFACTION IN MEETING THE BASIC NEED OF THE PATIENT

S. No	Items	Highly satisfied 4	Moderately satisfied 3	Mildly satisfied 2	Not satisfied 1
	INTERPERSONAL RELATIONSHIP				
1	Able to communicate while intubated				
2	Getting attention of health care personnel				
3	Interaction with friends and family members				
	MEETING THE BASIC NEEDS				
4	Expression of your wants				
	a) like to sit up				
	b) like to take rest				
	c) like to wear eye glasses				
	d) want a pillow				
	e) want to see family members				
	f) want to turn				
5	Expression of your needs				
	a) need to be bathed				
	b) need to be suctioned				
	c) need to sleep				
	d) feeling thirsty				
	e) feeling hungry				
	f) need bedpan				
	g) need urinal				

6	Expression of location and intensity of pain				
7	Expression of emotions				
	a) expressing your frustration				
	b) expression of your anxiety				
	c) expression of your angry				
	d) expression of loneliness				

Total score – 84

<28 - Not satisfied

28 – 55 - Moderately satisfied

>56 - Highly satisfied

கருவி -1

அடிப்படை விவரங்களை அறியும் படிவம்

1. வயது வருடங்களில்

   அ) 21-30

   ஆ) 31-40

   இ) 41-50

   ஈ) 51-60

   உ) 61-70

2. பாலினம்

   அ) ஆண்

   ஆ) பெண்

3. மதம்

   அ) இந்து

   ஆ) முஸ்லீம்

   இ) கிறிஸ்துவர்கள்

   ஈ) மற்றவை

4. கல்வித்தகுதி

   அ) எழுத்தறிவற்றவர்

   ஆ) ஆரம்பக்கல்வி

   இ) இடைநிலைக்கல்வி

   ஈ) மேல்நிலைக்கல்வி

   உ) இளநிலை பட்டதாரி

   உ) முதுகலைபட்டதாரி

5. வேலை

   அ) வேலை செய்பவர்

   ஆ) வேலை இல்லாதவர்

6. குடியிருக்கும் இடம்

அ) நகரம்

ஆ) கிராமம்

7. செயற்கை தொண்டைக்குழாயினை வைத்திருக்கும் நாட்கள்

அ) இரண்டு நாட்களுக்குள்

ஆ) 2 முதல் 5 நாட்களுக்குள்

இ) 6 நாட்களுக்கு மேல்

8. நீங்கள் பயத்தை குறைக்கும் மாத்திரைகளை எடுப்பவரா?

அ) ஆம்

ஆ) இல்லை

ஆம் என்றால் எந்தவகையான மாத்திரை .....

9. முன்னேற்ற கால இடைவெளி

அ) 2 நாட்கள்

ஆ) 3 நாட்கள்

இ) 4 நாட்கள்

10. நோய்கள்

அ) இருதய நோய்

ஆ) நுரையீரல் நோய்

இ) சிறுநீரக நோய்

ஈ) வயிறு சம்பந்தமான பிரச்சனைகள்

உ) நரம்பு சம்பந்தமான பிரச்சனைகள்

ஊ) தசை மற்றும் எலும்பு சம்பந்தமான நோய்

எ) அறுவை சிகிச்சை மூலம் அகற்றப்படுதல்

ஏ) மற்றவை

கருவி - 2

தினசரி தேவைகளை செய் வதன் மூலம் திருப்தி அடைவதின் மதிப்பை வரையறுக்கப்பட்ட நேர்காணலின் மூலம் கணக்கிடுதல்

வ. எண்	அறிவிப்பு	முழுமையாக திருப்தி அடைதல் (4)	போதுமான அளவு திருப்தி அடைதல் (3)	சிறிதளவு திருப்தி அடைதல் (2)	திருப்தி யின்மை (1)
I.	**மற்றவர்களிடம் பழகும் தன்மை**				
1.	செயற்கை குழாயினை தொண்டைக்குள் பொருத்திய பிறகும் பேசுதல்				
2.	சுகாதார ஆய்வாளர்களை அணுகுதல்				
3.	குடும்ப உறுப்பினர்கள் மற்றும் நண்பர்களிடம் பேசுதல்				
II.	**அடிப்படை தேவைகளைச் செய்தல்**				
4.	தன் தேவைகளை வெளிப்படுத்துதல் அ) உட்கார விரும்புதல் ஆ) ஓய்வு எடுத்தல் இ) கண் கண்ணாடி அணிவதை விரும்புதல் ஈ) தலையணை தேவை உ) குடும்ப உறுப்பினர்களை பார்க்க விரும்புதல் ஊ) திரும்பி படுக்க விரும்புதல்				
5.	தேவைகளை வெளிப்படுத்துதல் அ) குளிக்க வேண்டும் ஆ) நெஞ்சு சளியை உறிஞ்ச வேண்டும் இ) தூங்கவேண்டும் ஈ) தாகம் எடுத்தல் உ) பசி எடுத்தல் ஊ) கழிவறை பெட்டி தேவை எ) சிறுநீர் பெட்டி தேவை				

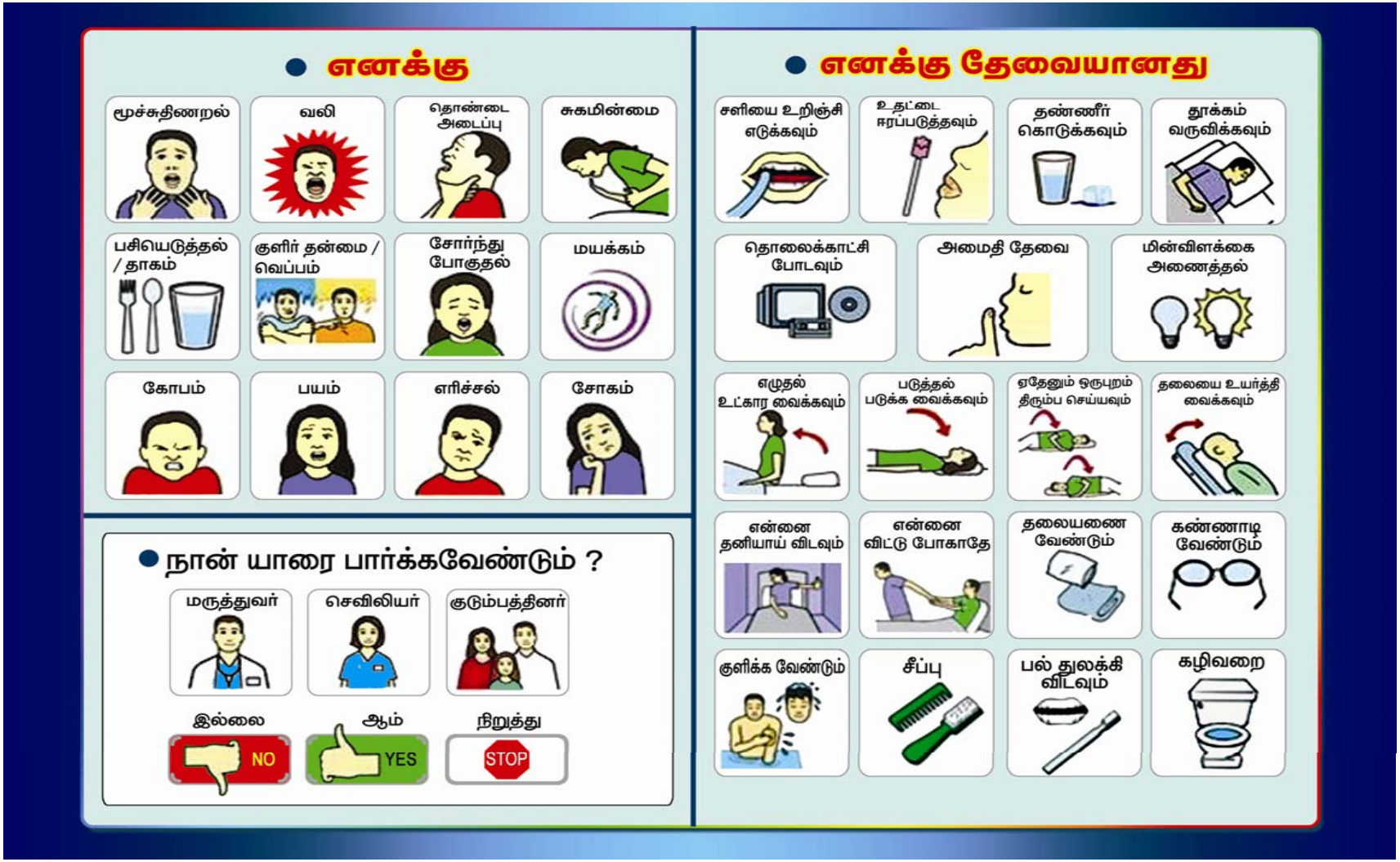
6.	எந்த இடத்தில் எவ்வளவு வலி இருக்கிறது என்பதை வெளிப்படுத்துதல்				
7.	உணர்ச்சிகளை வெளிப்படுத்துதல் அ) எரிச்சல் தன்மையை வெளிப்படுத்துதல் ஆ) பயத்தை வெளிப்படுத்துதல் இ) கோபத்தை வெளிப்படுத்துதல் ஈ) தனிமையை வெளிப்படுத்துதல்				

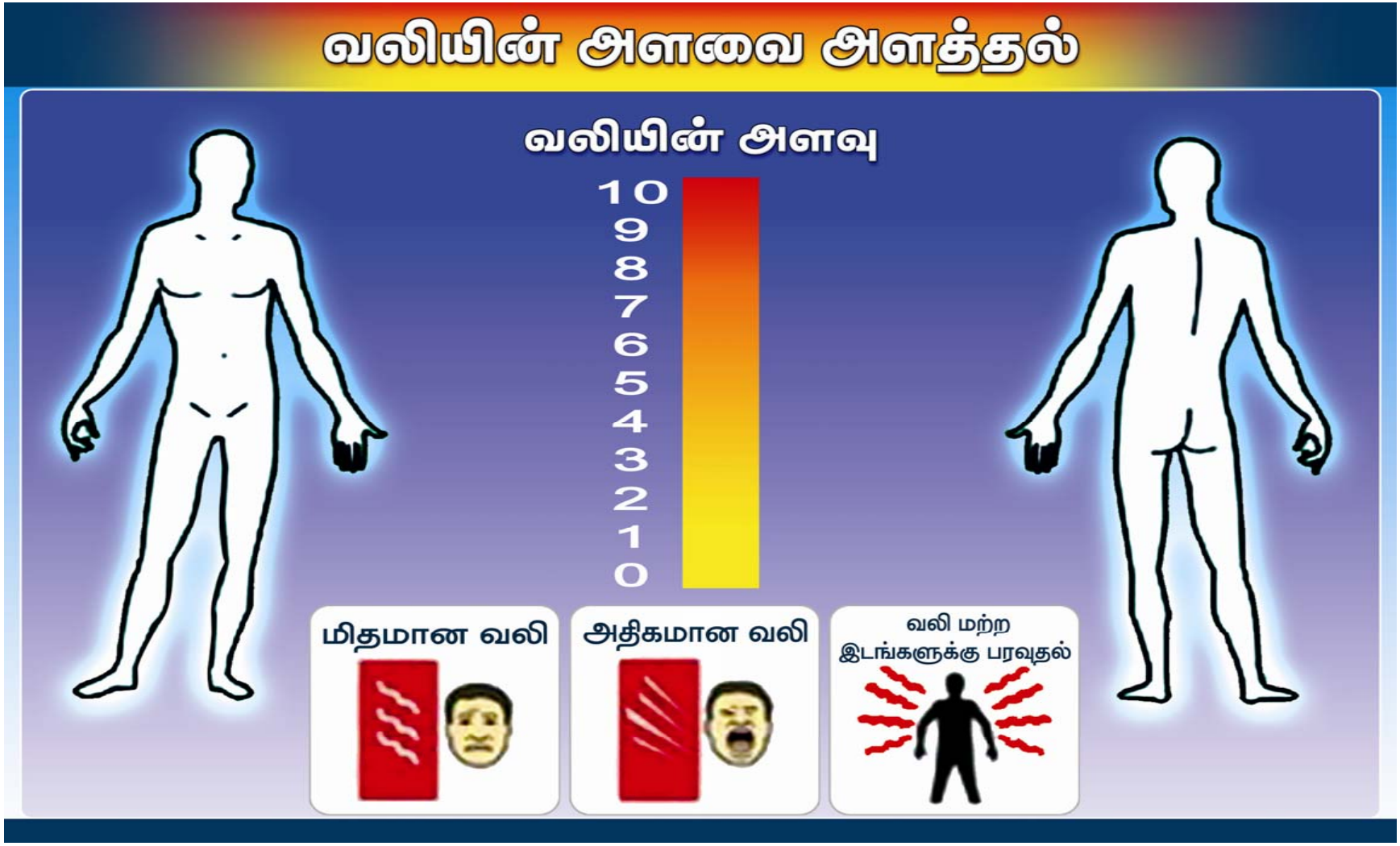
மொத்த மதிப்பெண் - 84

<28 - திருப்தியின்மை

28 - 55 - போதுமான அளவு திருப்தியடைதல்

>56 - முழுமையாக திருப்தியடைதல்


எனக்கு
மூச்சுத்திணறல்
வலி
தொண்டை அடைப்பு
சுகமின்மை
பசியெடுத்தல் / தாகம்
குளிர் தன்மை / வெப்பம்
சோர்ந்து போகுதல்
மயக்கம்
கோபம்
பயம்
எரிச்சல்
சோகம்
நான் யாரை பார்க்கவேண்டும் ?
மருத்துவர்
செவிலியர்
குடும்பத்தினர்
இல்லை
NO
ஆம்
YES
நிறுத்து
STOP
எனக்கு தேவையானது
சளியை உறிஞ்சி எடுக்கவும்
உதட்டை ஈரப்படுத்தவும்
தண்ணீர் கொடுக்கவும்
தூக்கம் வருவிக்கவும்
தொலைக்காட்சி போடவும்
அமைதி தேவை
மின்விளக்கை அணைத்தல்
எழுதல் உட்கார வைக்கவும்
படுத்தல் படுக்க வைக்கவும்
ஏதேனும் ஒருபுறம் திரும்ப செய்யவும்
தலையை உயர்த்தி வைக்கவும்
என்னை தனியாய் விடவும்
என்னை விட்டு போகாதே
தலையணை வேண்டும்
கண்ணாடி வேண்டும்
குளிக்க வேண்டும்
சீப்பு
பல் துலக்கி விடவும்
கழிவறை


வலியின் அளவை அளத்தல்
வலியின் அளவு
10
9
8
7
6
5
4
3
2
1
0
மிதமான வலி
அதிகமான வலி
வலி மற்ற இடங்களுக்கு பரவுதல்

ANNEXURE – E

CERTIFICATE OF VALIDATION

This is to certify that the tool developed by **MR. Subeen.P.D,** Final year M.Sc. Nursing student of Sri Gokulam College of Nursing, Salem (affiliated to The Tamil Nadu Dr. M.G.R. Medical University) is validated and can proceed with this tool and content for the main study entitled **"A Study to Assess the Effectiveness of Communication Board On The Level Of Satisfaction In Meeting The Basic Needs Of Patients on Ventilator, Admitted in ICU at Selected Hospitals, Salem.**"

Signature with Date

ANNEXURE - F

LIST OF EXPERTS

1. **Dr.S.SENTHILKUMARAN, M.D., A&E.,**
   Consultant and Incharge,
   Department of Emergency and Critical Care Medicine,
   Sri Gokulam Hospital,
   Salem.

2. **Dr. K. SELVAKUMARI, MD.,**
   Consultant Physician,
   Sri Gokulam Hospital,
   Salem.

3. **Mrs.PUSHPALATHA, Ph.D (N).,**
   HOD, Medical Surgical Department,
   Shanmuga College of Nursing,
   Salem.

4. **Ms.ABITHA, M.Sc(N).,**
   Associate Professor,
   Meenakshi College of Nursing,
   Chennai.

5. **Mrs. LAKSHMI PRABHA, M.Sc (N).,**
   Associate Professor,
   Vinayaga Mission College of Nursing,
   Salem.

6. **Mrs.GEETHA, M.Sc (N).,**
   Professor ,
   Vivegananda College Of Nursing
   Thiruchangodu.

7. **Mrs. SUMATHY, MSC (N).,**
   Associate Professor,
   Vinayaka Mission Annapoorna College of Nursing,
   Salem.

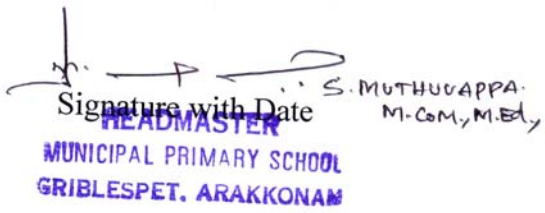
8. **Ms. SHEEJA, M.Sc(N).,**
   Associate Professor,
   Shanmuga College of Nursing,
   Salem.

ANNEXURE – G

CERTIFICATE OF EDITING

TO WHOMSOEVER IT MAY CONCERN

Certified that the dissertation paper titled **A Study to Assess the Effectiveness of Communication Board On Level Of Satisfaction In Meeting The Basic Needs Of Patients on Ventilator, Admitted in ICU at Selected Hospitals, Salem**" by **Mr.Subeen.P.D,** It has been checked for accuracy and correctness of English language usage and that the language used in presenting the paper is lucid, unambiguous free of grammatical or spelling errors and apt for the purpose



Signature with Date

CERTIFICATE OF EDITING

Certified that the dissertation paper titled "**A Study to Assess the Effectiveness of Communication Board On Level Of Satisfaction In Meeting The Basic Needs Of Patients on Ventilator, Admitted in ICU at Selected Hospitals, Salem."** by **Mr.Subeen.P.D,** has been checked for accuracy and correctness of Tamil language usage in the tool, and that the language used in snake and ladder game board is lucid, unambiguous, free of grammatical / spelling errors and apt for the purpose.

V. [illegible]
தமிழ் ஆசிரியர்

Signature :

Date :

St. Joseph's Mat. Hr. Sec. School
Adaikala Nagar,
Alangulam-627851.

ANNEXURE – H

PHOTOS

PROVIDING COMMUNICATION BOARD TO THE PATIENTS ON VENTILATOR